

# California Energy Commission June 4, 2009

Electricity Analysis Office
Generation Fuels Unit
Natural Gas Market Assessment



Storage: United States and California

# U.S. Storage Monthly Inventory (Current Year vs. Previous Year)



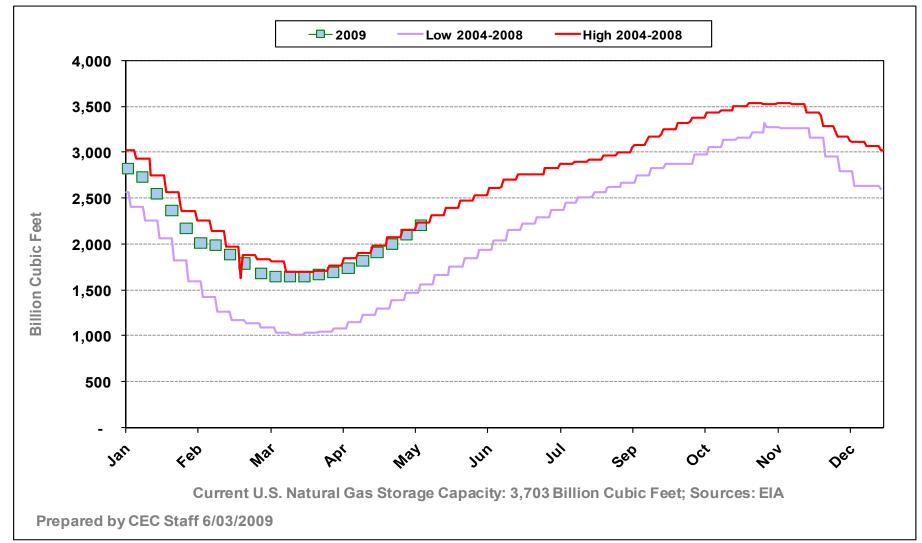


Current U.S. Natural Gas Storage Capacity: 3,703 Billion Cubic Feet; Sources: EIA

Prepared by CEC Staff 6/03/2009

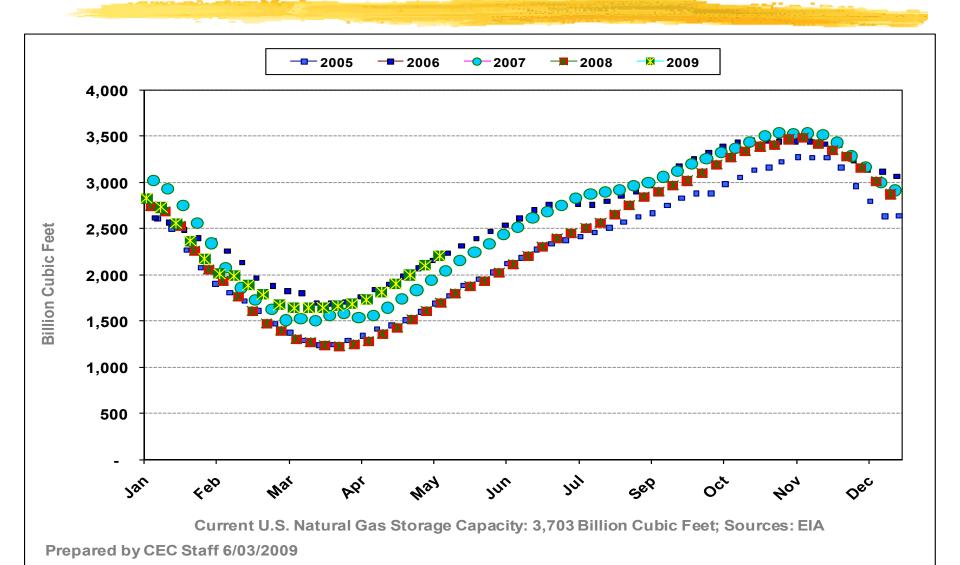
# U.S. Storage Monthly Inventory (Current Year vs. 5-Year Band)





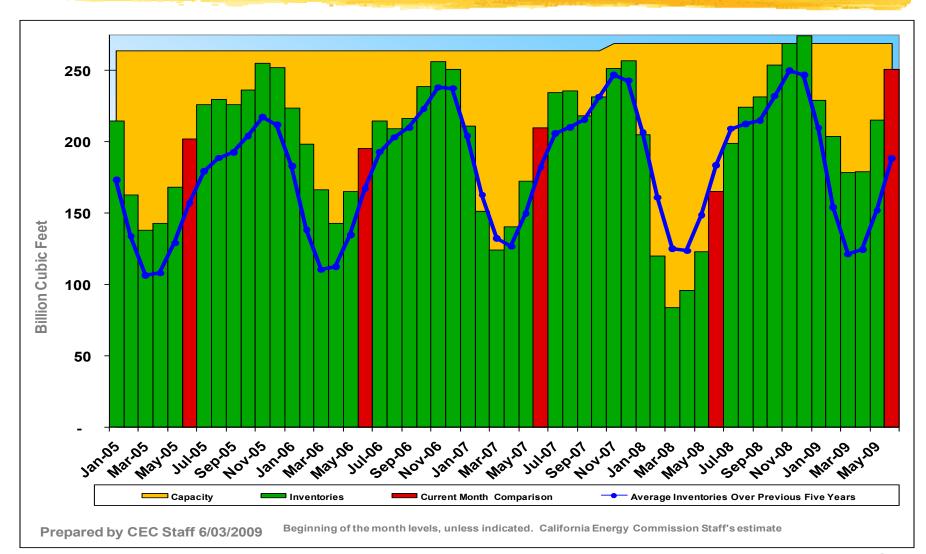
# U.S. Storage Monthly Inventory (Current Year vs. Previous Year)





# **CA Storage Capacity and Utilization**



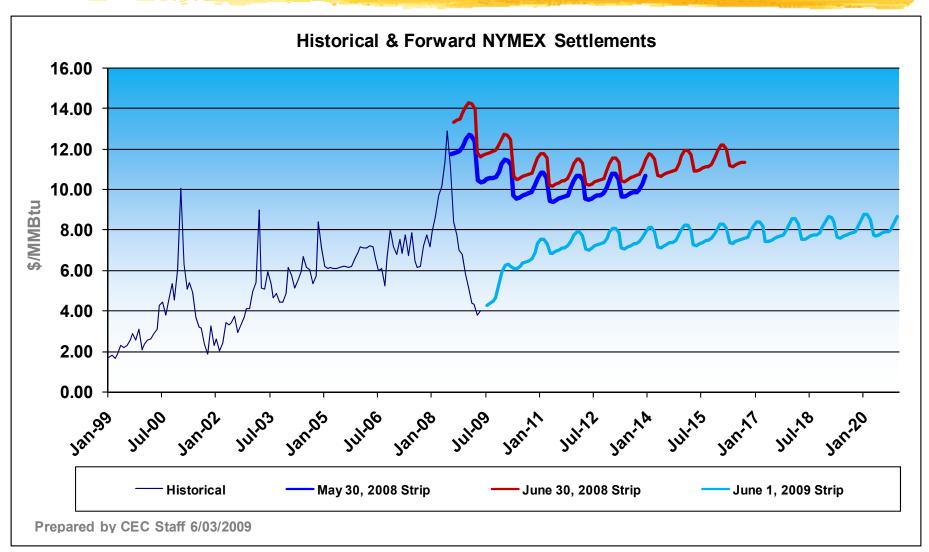




**Prices: United States and California** 

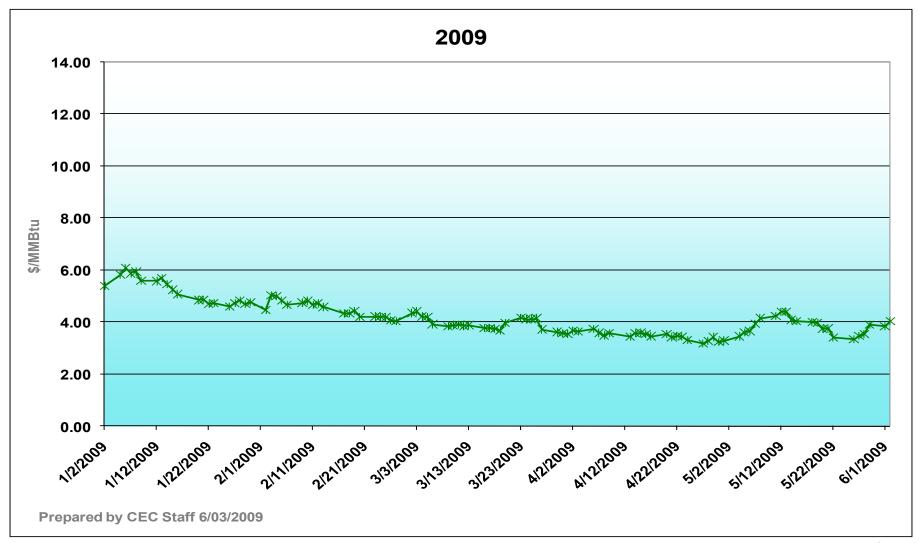
#### **U.S. Natural Gas Futures Prices**





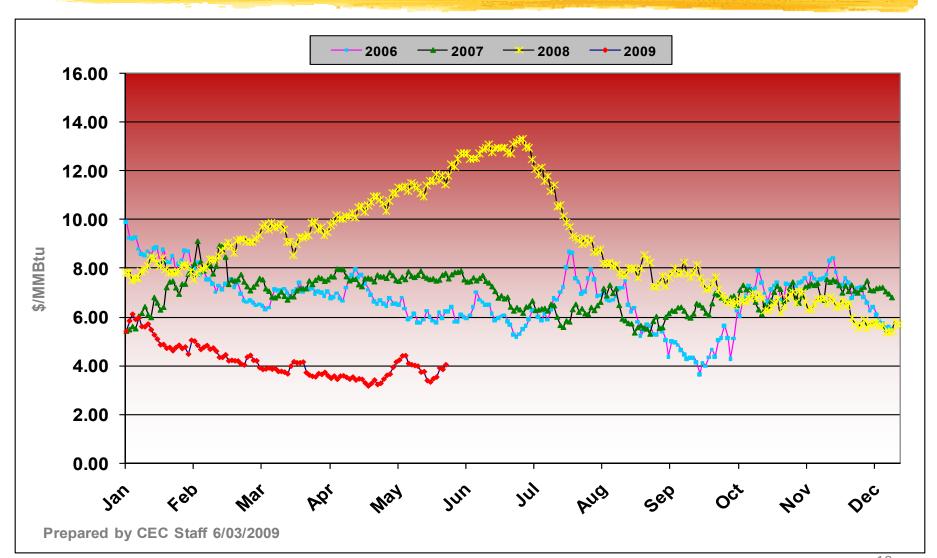
# **Henry Hub Daily Spot Prices**





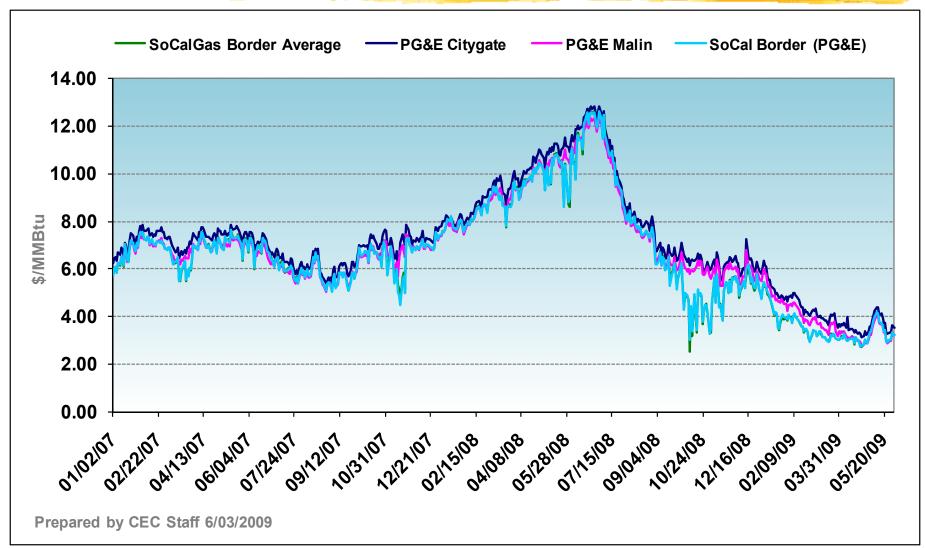
# **Henry Hub Daily Spot Prices**





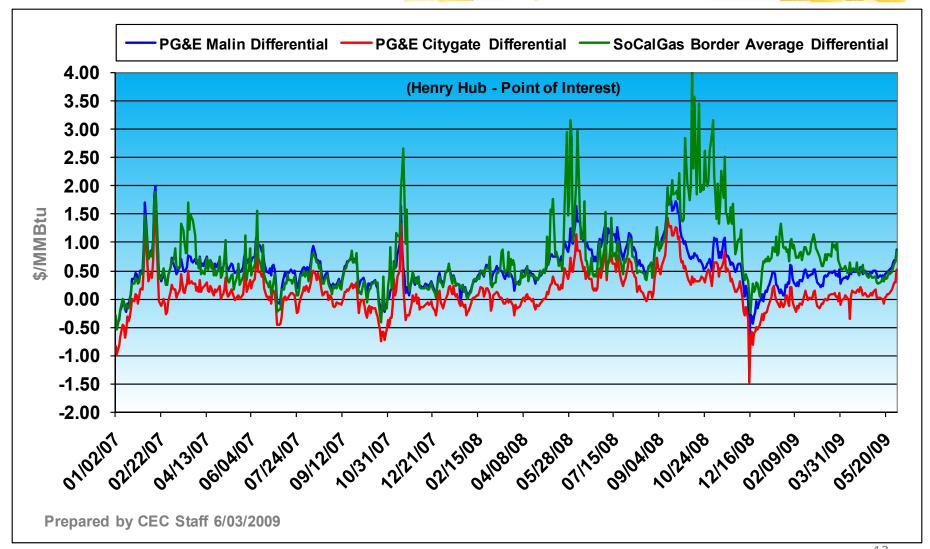
# **CA Natural Gas Spot Prices**





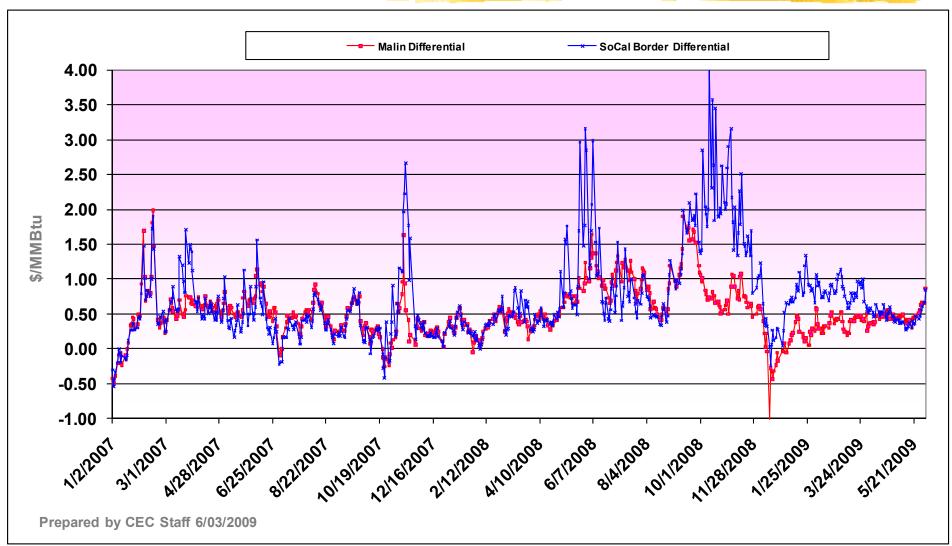
# **Henry Hub Daily Spot Prices Differential**





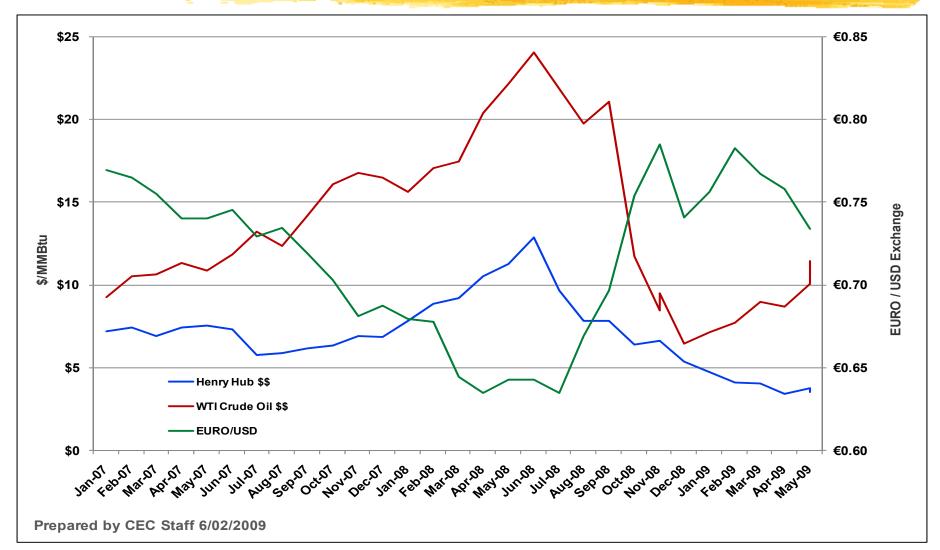
#### Henry Hub Daily Spot Prices 3-Year Differential





#### NG-Oil Spot Prices – Euro/USD



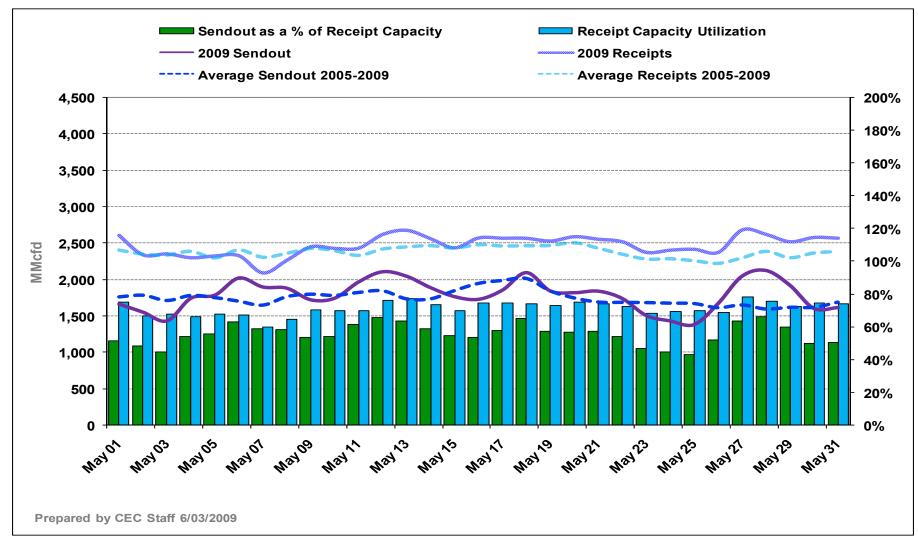




# **Infrastructure and Operations**

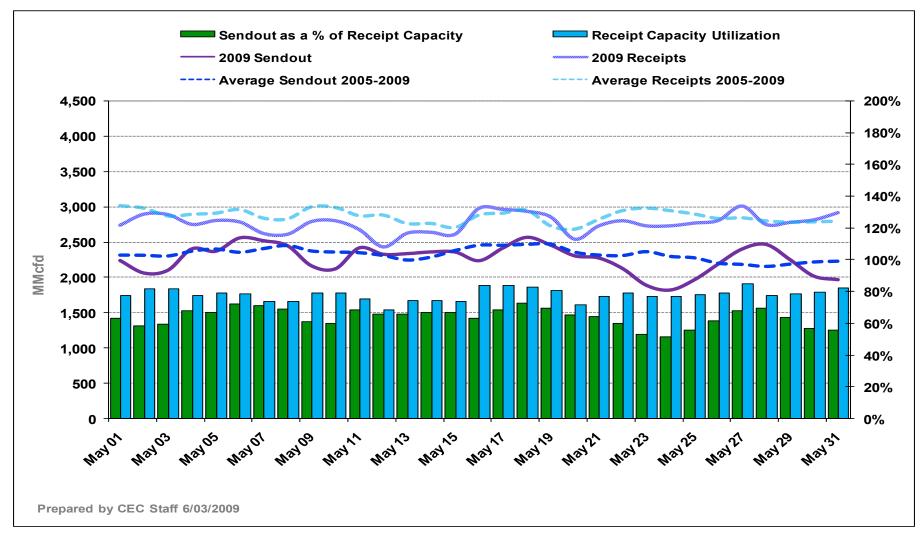
# **PG&E System Operations**





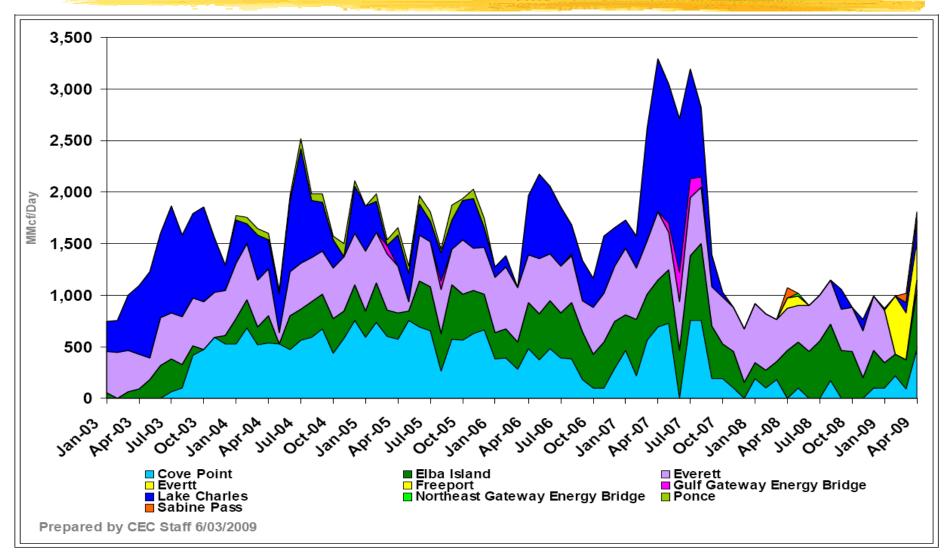
# **SCG System Operations**





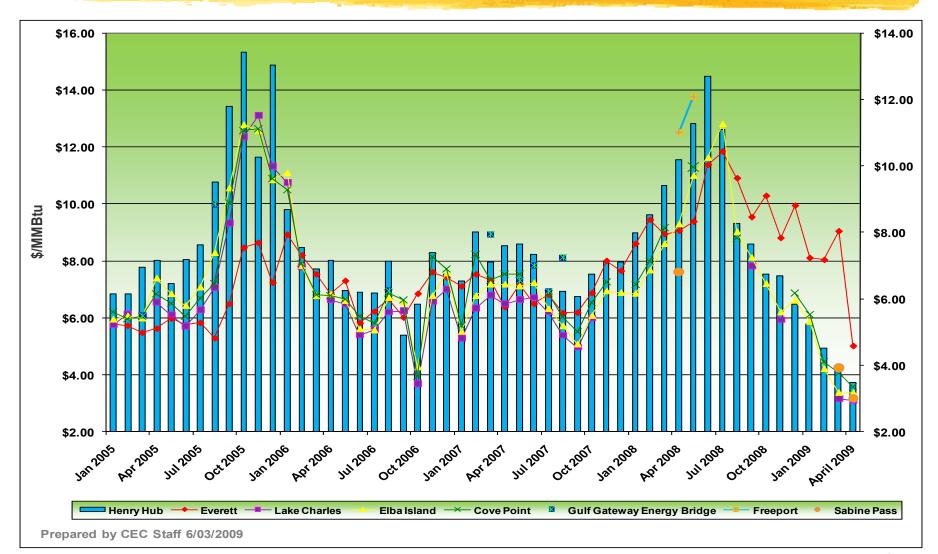
### **LNG Imports**





# **Average Terminal LNG Import Price**





#### **World LNG Estimated May 2009 Landed Prices**





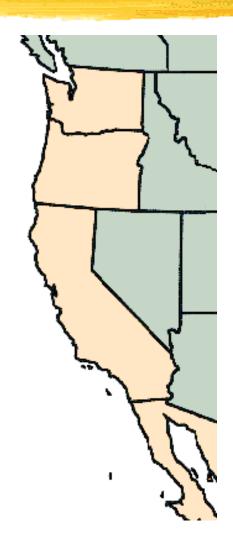
Prepared by CEC Staff 3/26/2009



# LNG Update

# LNG UPDATE SUMMARY

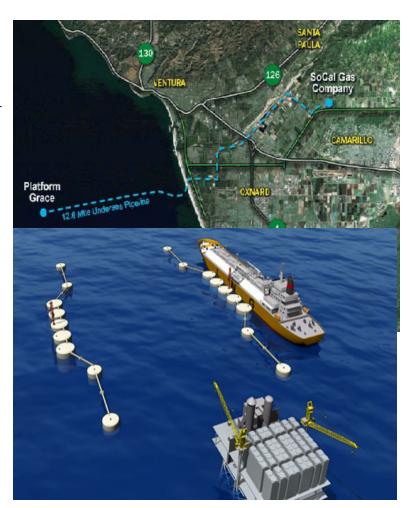




# **Clearwater Port LNG Project**



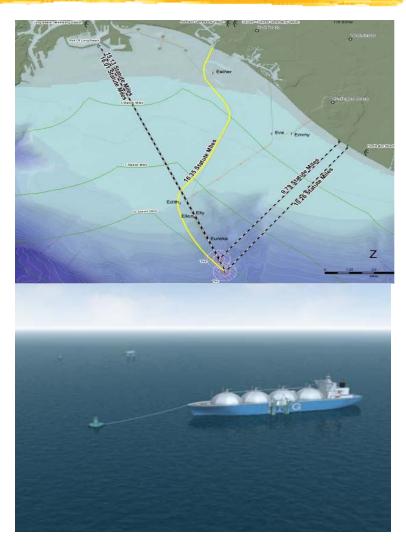
- California Location:
   12.6 miles offshore from
   City of Oxnard
- Owner: NorthernStar Natural Gas Inc
- Capacity: 1.4 Bcfd Peak
- Status: Application Clock Stopped



#### **Port Esperanza**



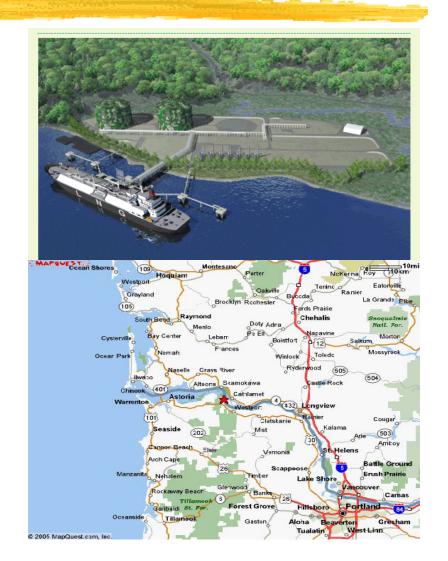
- California Location: 15
  miles seaward of the
  Port of Long Beach
- Owner: Esperanza Energy
- Capacity: 1.2 Bcfd
- Status: Project on hold



# **Northern Star LNG Facility**



- Oregon Location:
   Bradwood, Oregon, south shore Columbia River
- Owner: NorthernStar Natural Gas LLC
- Capacity: Peak send out of 1.3 Bcfd
- Status: LUBA's ruling overturns county's approval decision, matter to county now, US DoJ seeks review



# **Oregon LNG Facility**



- Oregon Location: Astoria
- Owner: Funding Partners
- Capacity: 1.5 Bcfd Peak
- Status: U. S. Coast Guard issues letter of recommendation 4/21/09



# **Jordan Cove Energy Project**



- Oregon Location: bay side of North Spit of Coos Bay
- Owner: Energy Projects Development, LLC
- Capacity: 1.0 Bcfd
- Status: FERC issues Final EIS on 5/1/09; finds project environmentally acceptable



#### **Kitimat LNG Facility**



- Canada Location: Bish
   Cove near Port of Kitimat
- Owner: Galveston LNG Inc
- Capacity: 1.0 Bcfd Peak
- Status: Mitsubishi becomes partner, Pipeline approved



### **Energia Costa Azul LNG Facility**





- Mexico Location: 14 miles north of Ensenada
- Owner: Sempra Energy LNG Corporation
- Capacity: 1.3 Bcfd Peak
- Status: Gazprom and Shell reach an agreement 4/8/09; Tangguh LNG delayed to July



# Questions/New Issues